

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059344 A1

(51) International Patent Classification⁷: **F02F 1/22,**
F02B 25/22, 33/04

(21) International Application Number:
PCT/SE2003/002020

(22) International Filing Date:
19 December 2003 (19.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **AK-
TIEBOLAGET ELECTROLUX** [SE/SE]; S-105 45
Stockholm (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CARLSSON,**
Bo [SE/SE]; Hemsjö 2470, S-441 96 Alingsås (SE).
MARTINSSON, Pär [SE/SE]; Ravingatan 10B, S-556

28 Jönköping (SE). **HOLMDAHL, Mikael** [SE/SE];
Andréevägen 70, S-554 66 Jönköping (SE). **OLANDER,**
Ulf [SE/SE]; Södra vägen 50, S-599 31 Ödeshög (SE).

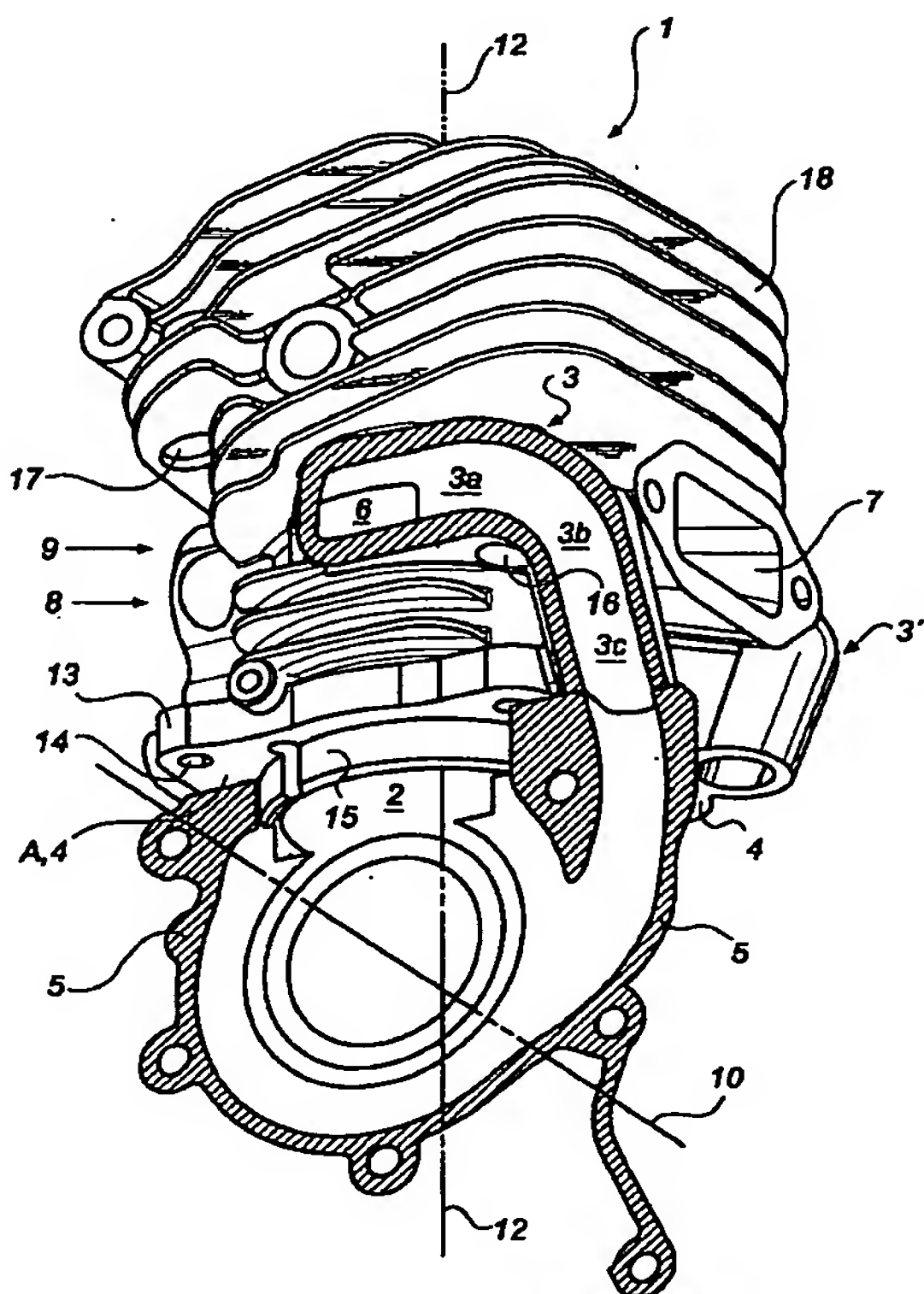
(74) Agent: **ANDERSSON, Lars**; AB Electrolux, Husqvarna
AB, Attn: Lars Andersson, S-433 81 Jonsered (SE).

(81) Designated States (*national*): AE, AG, AL, AM, AT (util-
ity model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (util-
ity model), DE, DK (utility model), DK, DM, DZ, EC, EE
(utility model), EE, ES, FI (utility model), FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: A CYLINDER FOR A CRANKCASE SCAVENGED INTERNAL COMBUSTION ENGINE



(57) Abstract: A cylinder (1) for a crankcase scavenged two-stroke engine, comprising a cylinder bore (2) with centre line (12) and on opposite sides of the cylinder located closed transfer ducts (3, 3'), which cylinder (1) has an underside (4) essentially perpendicular towards the cylinder bore (2), intended to be connected to a crankcase (5) in a parting plane (A), and besides an inlet (8) for air/fuel mixture, the cylinder is provided with at least one inlet (9, 9') for additional air to the combustion chamber, which inlet for additional air runs through a cylinder wall (11) and via a recess in the piston and a transfer port (6, 6') leads down into the transfer ducts (3, 3'). Especially the transfer ducts (3, 3') each have an upper section (3a, 3a') leading from the transfer port (6, 6') and in a tangential direction in relation to the cylinder bore (2) and is followed by an essentially right angled bend (3b, 3b') leading into a lower section (3c, 3c') leading into the parting plane (A), and at least the right-angled bend of each transfer duct is located on opposite sides of an exhaust duct (7) and during at least a part of the right-angled bend (3b, 3b') the transfer ducts approach each other.

WO 2005/059344 A1

WO 2005/059344 A1



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*